

IKS-6324 Series

22+2G-port Gigabit unmanaged Ethernet switches



- Meets NEMA TS2, EN 50121-4, and DNV/GL/ABS/LR/NK certifications
- Universal power supply range, 12/24/48 VDC or 110/220 VDC/VAC
- -40 to 75°C operating temperature range



Introduction

The IKS-6324 industrial rackmount Ethernet switches are designed to meet the demands of industrial application networks such as traffic control systems (NEMA TS2), and maritime applications (DNV/GL/LR/ABS/NK). The IKS-6324 is a 24-port industrial 19" rackmount Ethernet switch series that provides a rugged and economical solution for your industrial Ethernet connections. Up to two fast Ethernet fiber optic ports and combo Gigabit Ethernet TP or fiber optic ports can be

chosen to make the construction of a reliable Ethernet network easy. A universal power supply range of 12/24/48 VDC or 110/220 VDC/VAC give users greater flexibility in choosing power inputs. The Ethernet switches comply with UL standards and support a wide operating temperature range of -40 to 75°C. All models undergo a 100% burn-in test to ensure that they fulfill the special needs of industrial automation control applications.

Specifications

Technology

Standards:

- IEEE 802.3 for 10BaseT
- IEEE 802.3u for 100BaseT(X) and 100BaseFX
- IEEE 802.3ab for 1000BaseT(X)
- IEEE 802.3z for 1000BaseX
- IEEE 802.3x for Flow Control

Flow Control: IEEE 802.3x flow control, back pressure flow control

Switch Properties

MAC Table Size: 8 K

Packet Buffer Size: 2.5 Mbit

Interface

Fiber Ports: 100BaseFX (SC/ST connector) or 1000BaseSFP slots
RJ45 Ports: 10/100BaseT(X) or 10/100/1000BaseT(X) auto negotiation speed, Full/Half duplex mode and auto MDI/MDI-X connection

LED Indicators: STAT, PWR1, PWR2, FAULT, LNK/ACT, FDX/HDX, SPEED

Note: Slot 1 is for a 2-port PM-7200 Gigabit Ethernet combo module, or 1 or 2-port PM-7200 Fast Ethernet module. See below for details.

Power Requirements

Input Voltage: 12/24/48 VDC (9 to 60 V), or 110/220 VDC/VAC (88 to 300 VDC and 85 to 264 VAC)

Input Current: (with max. number of fiber ports installed)

- Max. 1.36 A @ 12 VDC
- Max. 0.68 A @ 24 VDC
- Max. 0.35 A @ 48 VDC
- Max. 0.17/0.11 A @ 110/220 VDC
- Max. 0.33/0.23 A @ 110/220 VAC

Overload Current Protection: Present

Connection: 10-contact terminal block

Reverse Polarity Protection: Present

Unmanaged Rackmount Ethernet Switch System, IKS-6324



Slot 1

Physical Characteristics

Housing: IP30 protection

Dimensions: 440 x 44 x 278.3 mm (17.32 x 1.73 x 10.96 in)

Weight: 4300 g

Installation: 19" rack mounting

Environmental Limits

Operating Temperature: -40 to 75°C (-40 to 167°F)

Storage Temperature: -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Standards and Certifications

Safety: EN 60950-1

EMI: FCC Part 15 Subpart B Class A, EN 55022 Class A

Marine: DNV, GL, LR, ABS, NK

Traffic Control: NEMA TS2

Rail Traffic: EN 50155, EN 50121-4

Note: Please check Moxa's website for the most up-to-date certification status.

MTBF (mean time between failures)

Time: 197,700 hrs

Database: Telcordia (Bellcore), GB

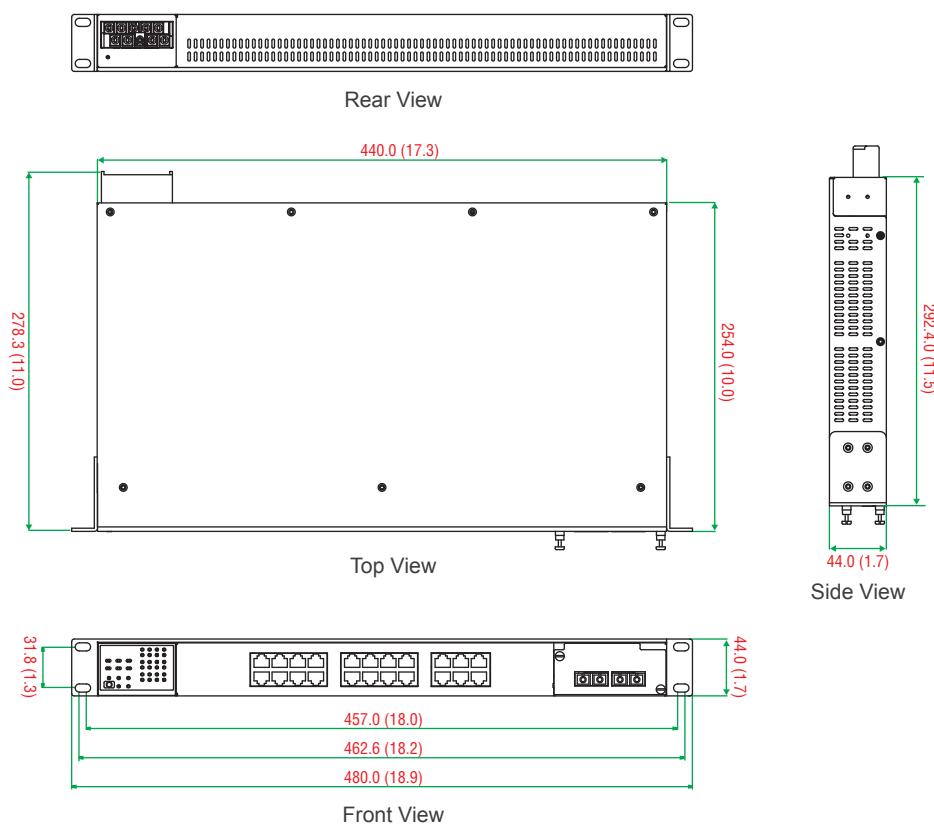
Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions

Unit: mm (inch)

**Ordering Information**

Step 1: Select Ethernet switch system Step 2: Select interface modules

IKS-6324 with power supply

PM-7200 modules
(Gigabit or Fast Ethernet)

Note: The IKS-6324 Ethernet switch system is delivered without interface modules. See below to determine which PM-7200 interface modules are suitable for your application.

IKS-6324 Unmanaged Rackmount Ethernet Switch System

The IKS-6324 switch system consists of 2 unmanaged rackmount Ethernet switch systems with 22 10/100BaseT(X) ports, and 1 slot for Fast Ethernet or Gigabit Ethernet modules. A total of up to 24 or 22+2G ports can be installed, and the switch can be used in a temperature range from -40 to 75°C.

Product Model	Power Supply	
Front Cabling, Front Display	LV: 12/24/48 VDC (9 to 60 V)	HV: 88 to 300 VDC and 85 to 264 VAC, isolated
IKS-6324-F-LV-T	1	–
IKS-6324-F-HV-T	–	1

Gigabit/Fast Ethernet Module Compatibility Chart for the IKS-6324 Series

	Interface Module					
	PM-7200-2GTXSP	PM-7200-1MSC	PM-7200-1MST	PM-7200-2MSC	PM-7200-2NST	PM-7200-2SSC
Slot 1	✓	✓	✓	✓	✓	✓

Package Checklist

- IKS-6324 switch
- Protective caps for unused ports
- 2 rackmount ears
- Hardware installation guide (printed)
- Warranty card

PM-7200 Series

Gigabit and Fast Ethernet modules for PT and IKS series rackmount Ethernet switches

Specifications

Gigabit Ethernet Interface Modules, PM-7200-2G/4G Series



PM-7200-4GTXSFP



PM-7200-2GTXSFP

Interface

RJ45 Ports: 10/100/1000BaseT(X) auto negotiation speed, and auto MDI/MDI-X connection

Fiber Ports: 1000BaseSFP slots

Note: The PM-7200-2G/4G series Gigabit Ethernet combo modules support 2 or 4 SFP slots. See the SFP-1G series Gigabit Ethernet information below to select the modules for your application.

Fast Ethernet Interface Modules, PM-7200 Series



PM-7200-8TX

PM-7200-6MSC
PM-7200-6SSC

PM-7200-6MST

PM-7200-4MSC2TX
PM-7200-4SSC2TX

PM-7200-4MST2TX

PM-7200-2MSC4TX
PM-7200-2SSC4TX

PM-7200-2MST4TX

PM-7200-2MSC
PM-7200-2SSC

PM-7200-2MST



PM-7200-1MSC



PM-7200-1MST



PM-7200-8SFP*



PM-7200-4M12



PM-7200-8MTRJ



PM-7200-4MST-FL



PM-7200-4TX-PTP



PM-7200-4MSC-PTP



PM-7200-4MST-PTP



PM-7200-1BNC2MST-PTP

*See the SFP-1FE series Fast Ethernet information below to select modules for your system.

Interface

RJ45 Ports: 10/100BaseT(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection

Fiber Ports: 100BaseFX ports (SC/ST/MTRJ or SFP LC connector)

M12 Ports: 10/100BaseT(X) auto negotiation speed, and auto MDI/MDI-X connection

BNC Ports: Time clock signal PPS (pulses per second) output for IEEE 1588 time synchronization

Optical Fiber

	100BaseFX			10BaseFX
	Multi-mode	Single-mode	Single-mode, 80 km	Multi-mode
Wavelength	1300 nm	1310 nm	1550 nm	1300 nm
Max. TX	-10 dBm	0 dBm	0 dBm	-10 dBm
Min. TX	-20 dBm	-5 dBm	-5 dBm	-20 dBm
RX Sensitivity	-32 dBm	-34 dBm	-34 dBm	-32 dBm
Link Budget	12 dB	29 dB	29 dB	12 dB
Typical Distance	5 km ^a 4 km ^b	40 km ^c	80 km ^d	5 km ^a 4 km ^b
Saturation	-6 dBm	-3 dBm	-3 dBm	-6 dBm

a. 50/125 µm, 800 MHz·km fiber optic cable

b. 62.5/125 µm, 500 MHz·km fiber optic cable

c. 9/125 µm single-mode fiber optic cable

d. 9/125 µm single-mode fiber optic cable (80 km)

Ordering Information**Rackmount Ethernet Switch System and Interface Module Compatibility Chart****Modular Rackmount Ethernet Switch System:**

PT-7828/PT-7728-PTP/

PT-7710

PT-7728



IKS-6324



		IEEE 1588 Interface Modules		Interface Modules																		
		PM-7200-4TX-PTP	PM-7200-4MSC-PTP	PM-7200-4MST-PTP	PM-7200-4GTXSFP	PM-7200-1BNC2MST-PTP	PM-7200-1MSC/2MSC	PM-7200-1MST/2MST	PM-7200-2SSC	PM-7200-3TX	PM-7200-2MSC4TX	PM-7200-2SSC4TX	PM-7200-4MSC2TX	PM-7200-4MST2TX	PM-7200-4SSC2TX	PM-7200-6MST	PM-7200-6SSC	PM-7200-8SFP*	PM-7200-AM12	PM-7200-8MTRJ	PM-7200-4MST-FL	
PT-7828	Slots 1-3	-	-	-	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Slot 4	-	-	-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PT-7728-PTP	Slots 1-3	✓	✓	✓	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Slot 4	-	-	-	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PT-7710	Slot 1	-	-	-	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Slot 2	-	-	-	-	-	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-
IKS-6324	Slot 1	-	-	-	-	-	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-

Gigabit Ethernet Modules, PM-7200-2G/4G Series

Available Models	Port Interface	
	Combo Port, 10/100/1000BaseT(X) or 1000BaseSFP*	
PM-7200-2GTXSFP		2
PM-7200-4GTXSFP		4

*The PM-7200-2G/4G series Gigabit Ethernet combo modules support 2 or 4 SFP slots.

Fast Ethernet Modules, PM-7200 Series

Available Models	Port Interface								100BaseSFP	PPS output, BNC connector		
	10/100BaseT(X)		10BaseFL	100BaseFX								
	TP	M12	Multi-mode, ST Connector	Multi-mode, SC Connector	Multi-mode, ST Connector	Multi-mode, MTRJ Connector	Single mode, SC Connector	Single mode, SC Connector, 80 km				
PM-7200-8TX	8	—	—	—	—	—	—	—	—	—		
PM-7200-6MSC	—	—	—	6	—	—	—	—	—	—		
PM-7200-6MST	—	—	—	—	6	—	—	—	—	—		
PM-7200-6SSC	—	—	—	—	—	—	6	—	—	—		
PM-7200-4MSC2TX	2	—	—	4	—	—	—	—	—	—		
PM-7200-4MST2TX	2	—	—	—	4	—	—	—	—	—		
PM-7200-4SSC2TX	2	—	—	—	—	—	—	4	—	—		
PM-7200-2MSC4TX	4	—	—	2	—	—	—	—	—	—		
PM-7200-2MST4TX	4	—	—	—	2	—	—	—	—	—		
PM-7200-2SSC4TX	4	—	—	—	—	—	2	—	—	—		
PM-7200-2MSC	—	—	—	2	—	—	—	—	—	—		
PM-7200-2MST	—	—	—	—	2	—	—	—	—	—		
PM-7200-2SSC	—	—	—	—	—	—	2	—	—	—		
PM-7200-1MSC	—	—	—	1	—	—	—	—	—	—		
PM-7200-1MST	—	—	—	—	1	—	—	—	—	—		
PM-7200-8SFP	—	—	—	—	—	—	—	—	8	—		
PM-7200-4M12	—	4	—	—	—	—	—	—	—	—		
PM-7200-8MTRJ	—	—	—	—	—	8	—	—	—	—		
PM-7200-4MST-FL	—	—	4	—	—	—	—	—	—	—		
PM-7200-4TX-PTP	4	—	—	—	—	—	—	—	—	—		
PM-7200-4MSC-PTP	—	—	—	4	—	—	—	—	—	—		
PM-7200-4MST-PTP	—	—	—	—	4	—	—	—	—	—		
PM-7200-1BNC- 2MST-PTP	—	—	—	—	2	—	—	—	—	1		

Package Checklist

- PM-7200 interface modules
- Warranty card